A battle, not the war.

A look on The Linguistic War from fifty years ago, and the situation now.

During the sixties and seventies, a fierce linguistic war was battled in the United States over the position of 'meaning' in the linguistic system. Names were called, voices were raised, indecent example sentences were given, and linguists assumed invective pseudonyms and affiliations. In short, this is the story of a not-so-typical academic dispute, a linguistic dogfight that lasted for more than ten years, fought high up in the ivory towers of The University.

We have to start our story with Noam Chomsky shaking up the linguistic field with his revolutionary Syntactic Structures (1957) and the paradigm shifting Review of B.F. Skinner's *Verbal Behavior* (1959). This arousal did not lead to The Linguistic War, which would only start about a decade later, but rather to the smooth **first cognitive revolution** in the study of language.

The revolution overthrew the prevailing idea in linguistics that a stimulus evokes a response, just like Pavlov's dog would start to drool at the ring of a bell. Chomsky proposed a psychologically much richer and overall more attractive perspective on linguistic behavior. He stated that phrases can be elegantly derived from each other by

means of so-called 'transformations', and that these transformations would help us to understand meaning, i.e. what is being said.

Let's look at a few examples. First, take a simple active sentence such as *John eats a sandwich*. That sentence can be easily transformed into the equivalent passive sentence *A sandwich is eaten by John*, and such a conversion is called the 'Passive Transformation'.

Or take the sentence *the hunters shoot*. This small sentence can be transformed into *the shooting of the hunters*. This transformation is also known as a 'Nominalization', since the verb *to shoot* becomes the noun *the shooting*. Now, a quick reader will have noticed that *the shooting of the hunters* could also be a transformation of *the hunters are being shot*, albeit a bit farfetched. In that sentence, it is, quite unnervingly, somebody else who is shooting at the hunters! *The shooting of the hunters* has thus two meanings: it is ambiguous. Chomsky elegantly explained how language users can disambiguate *the shooting of the hunters*, simply by applying different transformations that result in the unambiguous phrases *the hunters shoot* versus *the hunters are being shot*.

Relating transformations with meaning was a central topic in Chomsky's 1965 book Aspects of the Theory of Syntax. Although it was left somewhat unclear what meaning and syntax really have to do with each other, one bold claim -- which is known as the 'Katz-Postal Hypothesis' -- stood out from the crowd. The hypothesis states that a transformation from one sentence to another shall not change the meaning. In other words, all transformations of a sentence must have the same meaning.

The Katz-Postal Hypothesis states that a transformation from one sentence to another shall not change the meaning, so that all transformations of a sentence have the same meaning.

Chomsky left the Katz-Postal hypothesis as a dangling proposition during a sabbatical year at Berkeley in 1966. With Chomsky away, four devoted followers – George Lakoff, Haj Ross, Paul Postal and Jim McCawley -- developed a theory of **Generative Semantics** by pushing the Katz-Postal Hypothesis to the extreme.

Generative semantics claims that a theory about language has a central component in which meaning and syntax are tightly interwoven.

The central idea of Generative Semantics is that meaning-preserving transformations can be used to connect the construction of a sentence with unambiguous building bricks of meaning. Let me explain with an example. Take the sentence *Matthew killed the bogies*, in the middle of the table below. Most linguists would be quite happy with the syntactic analysis in the first rows of that table. Generative semanticists, however, insisted on adding more rows at the bottom, which should give a perspective on the meaning of the sentence. In this case, the verb 'to kill' is made increasingly more

specific by meaning-preserving transformations. Four building bricks of meaning

remain: CAUSE, TO BECOME, NOT and ALIVE.

A Generative Semantic analysis of *Matthew killed the boogies*.

	Sentence					
Syntax	Noun Phrase	Verb Phrase				
	Noun	Verb				Noun Phrase
Sentence	*Matthew*	*killed*				*the bogies*
Semantics	Matthew	caused	to die			the bogies
	Matthew	caused	to become	dead		the bogies
	MATTHEW	CAUSE	TO BECOME	NOT	ALIVE	BOGIES

Haj Ross wrote down the theory in a 1967 letter to Arnold Zwicky, and the ideas were

disseminated to the scientific community during the 'Camelot, 1968' meeting in

Urbana, Illinois. The four devoted followers also presented their theory to Chomsky

upon his return at The University. However, Chomsky was not happy at all with the

progress they made. In contrast to the efforts in Generative Semantics to integrate

meaning and syntax, Chomsky had developed the opposite idea of an autonomous

syntactic theory in which meaning did not play a role during his sabbatical.

The starting point for Chomsky's idea was a refutation of the Katz-Postal Hypothesis

that transformations preserve meaning -- a central assumption for Generative

Semantics, and a hypothesis that Chomsky himself supported in his 1965 book.

Chomsky's counterargument revolves around the undeniable fact that the 'Passive Transformation' does not necessarily preserve meaning.

Consider the sentences *Many men read few books* and *Few books are read by many men*. Although these two sentences are transformations of each other -- just like *John eats a sandwich* and *A sandwich is eaten by John* -- their meaning is not the same. In the first sentence, the amount of books may still be large, even when each individual man only reads a few books. In the second sentence, the amount of books is very small, and the individual men all read at least the same set of books.

In the wake of Chomsky's attack on Generative Semantics, Ray Jackendoff (and others) formulated the theory of **Interpretative Semantics**, in which meaning is studied separately from syntax. The theory was presented in Jackendoff's article Semantic Interpretation in Generative Grammar.

>Interpretative semantics is a theory of semantics in which meaning only comes into play after putting the words together in a syntactic structure. As such, syntax becomes a completely autonomous discipline.

Now, these are the participants of The Linguistic War: two opposing groups of fairly young scientists, with Chomsky supporting Interpretative Semantics, and with generative semanticists assuming the role of the underdog. The year is now 1968, the Vietnam War is on everybody's mind, revolution is what you do before breakfast, and

hippies are becoming the mainstream. The atmosphere at The University grew grim and battle positions were assumed.

At first, the war was academically fought in publications and during conferences. One of the important battles took place during the 1969 Texas conference on Goals of Linguistic Theory. Here, Chomsky and the interpretative semanticists publicly denounced that transformations preserve meaning. In contrast, Generative Semantics -- from then on loudly defended by George Lakoff -- turned meaning-preserving transformations into an absolute truth, a dogma of science.

Another important issue for interpretativists was that Generative Semantics wanted to expand the kind of phenomena that should be handled by grammar. After including meaning in grammar, the door of Generative Semantics now stood open to bring in usage phenomena, such as appropriateness. Robin Lakoff – George Lakoff's wife – used the following example to defend the inclusion of usage phenomena. More importantly, it clearly foreshadows the adversarial and slipping tone of the later rows and fights. Sensitive readers may want to skip this.

Take the two similar sentences *Defecation is generally expedited by the use of large banana leaves* and *Making number 2 is generally expedited by the use of large banana leaves*. Lakoff claims that a grammar should not allow for the second sentence, because the somewhat childish *making number 2* is not appropriate in combination with the formality of *is generally expedited*. These kinds of usage-related phenomena received more and more attention from Generative Semantics, which celebrated the difficulty of grasping the mysteries of actual language use, beyond constructed

examples. In contrast, Chomsky tried to keep things tidy and clean by shunning pragmatics altogether.

With ever stronger academic polarization between Generative Semantics and Interpretative Semantics, and with a little help of the 1960s-1970s *Zeitgeist*, a situation emerges in which Chomsky becomes 'The Establishment' and Lakoff represents 'Counterculture'. Obviously, this simplistic image does no justice to the truth. Whereas one expects the Counterculture to be the most productive and constructive, it is in fact The Establishment – albeit perhaps inspired and spurred on by Generative Semantics – that makes substantial headway, not in the least by the work of Ray Jackendoff.

Although it would be interesting to go into a bit more detail about the development in Interpretative Semantics, let's focus on the dynamics in Generative Semantics. Their ideas -- although exciting and some still resonating today -- were presented in a defensive and antagonistic way. One type of rebellious action was to sit in Chomsky's lectures and to challenge him in front of undergraduates. Experts in this guerilla tactic were Mr. and Mrs. Lakoff. At one point, Mr. Lakoff is supposed to have accused Chomsky – at that time still the highest ranking professors in the field – of not being up to speed with the latest developments:

"I have been saying the same thing." Lakoff remarked.

"Where did you write about it?" Chomsky asked in return.

"I have been lecturing about these things, and if you are interested, you should come to my class." Lakoff scoffed.

Obviously, this is not a gentlemanly approach to scientific progress. And things got even less academic from then on. Those sensitive readers that skipped the examples of Mrs. Lakoff above might want to skip the following section, as well.

Example sentences in publications started to express political viewpoints – *America's claim that it was difficult to control Vietnamese aggression in Vietnam surprised no one* --, and often they were just hedonistic shouting about sex, drugs and rock 'n roll – *My cache of marijuana got found by Fido, the police dog*.

Key publications circulated in the 1971 bundle that carried the not so revealing title Studies Out In Left Field: Defamatory Essays, with contributions such as 'Up Yours' And Related Constructions. Some generative semanticists published under offensive aliases, e.g. McCawley used the pseudonym Quang Phuc Dong (who taught at the fictional South-Hanoi Institute of Technology, S.H.I.T., and the Free University of Central Quebec, F.U.C.Q.). Interpretative Semantics is not without blame, either. At one point, Jackendoff uses the following example: *Although the bum tried to hit me, I can't really get too mad at George.* This is a direct slur, launched quite unveiled at George Lakoff. Even worse, Frederick Newmeyer reports that Jackendoff and Lakoff "hurled amplified obscenities at each other before 200 embarrassed onlookers" at a conference.

From 1973 onwards, the content of the dispute became methodological and conceptual. Methodologically speaking, generative semanticists loved data and produced new and mostly convincing counterexamples against the ideas of

Interpretative Semantics every day. On the conceptual level, interpretative semanticists blamed Generative Semantics for being not theoretical enough. The public opinion, however, was tilting increasingly in favor of the opinionated generative semanticists and their frivolous approach. Lakoff felt so certain of becoming the victor of The Linguistic War that he ends one of his 1973 papers with the victorious cry *Nyaah, nyaah!*

And indeed, as a force of opposition -- poking holes in the proposals of interpretatives -- Generative Semantics was very successful and attractive. However, their acquired dominant position in the field as of 1974 onward required exerting visionary leadership. Alas, the foremen of Generative Semantics could not keep the field together.

As a matter of fact, Generative Semantics basically evaporated as soon as they got the upper hand. Postal ventured out on his own to develop Relational Grammar. Lakoff moved on to publish his now famous Metaphors We Live By (with Mark Johnson). Haj Ross ventured out into poetics. And James McCawley stuck with Generative Semantics, but simply did not want to scream as loudly and fight as boldly as the Lakoffs did.

The fate of Judith Levi's Generative Semantic doctoral dissertation is characteristic of the rapid disintegration of her field. The dissertation was supervised by the brilliant McCawley and successfully defended in 1974, at the peak of Generative Semantics. But when she published the dissertation in 1978, her book had a difficult time finding an interested audience, because the Generative Semantic community was gone.

Unsurprisingly then, after the hot-headed years of shouting and polarization, it was Interpretative Semantics, and not Generative Semantics, that could finally observe the victory in The Linguistic War. Indeed, by 1977, twenty years after Chomsky's paradigm-shifting Syntactic Structures, everything was relatively quiet again.

A timeline of The Linguistic War

1957	Syntactic Structures (Chomsky)
1964	Katz-Postal Hypothesis: transformations preserve meaning
1965	Aspects of the Theory of Syntax (Chomsky)
1966	Chomsky's sabbatical at Berkeley
1967	Ross writes a letter to Zwicky
1968	Camelot, 1968
1969	Texas Conference on Goals of Linguistic Theory
1970	Lakoff's PhD dissertation
1971	On Generative Semantics (Lakoff), Studies out in Left Field (McCawley)
1972	Semantic Interpretation in Generative Grammar (Jackendoff)
1973	*Nyaah, nyaah!*

The crumbling state of Generative Semantics in the second half of the seventies turned into one of the feeding lines for the new linguistic paradigm of Cognitive Linguistics, which emerged during the eighties and established itself in the nineties. Since then, Chomskyan linguistics and Cognitive Linguistics have been living next to each other, without much contact or drama. But just as Chomsky could spark the first cognitive

revolution, the emergence of Cognitive Linguistics brought a **second cognitive revolution**.

> The first cognitive revolution indicates the shift from an almost mechanic stimulus-response model of language, to a meaning-oriented cognitive model. The second cognitive revolution indicates the movement from a theoretical syntactic theory, to a psychologically grounded theory of language.

This second cognitive revolution in linguistics has been attributed to, among many others, two key figures: George Lakoff and Ronald Langacker. The latter became famous and very influential by writing two monumental volumes on the Foundations of Cognitive Grammar in 1987 and 1991. Langacker put meaning and usage – just like Generative Semantics -- central in the analysis of linguistic phenomena. Now, admittedly, this was already the main tenet of pre-structuralist European theories of the 19th century (e.g. Hermann Paul and Michel Bréal).

Today, the combination of syntax, meaning and pragmatics is accepted by the many Cognitive Linguists out there, and some Chomskyans are not all too opposed to accepting some meaning and pragmatics in their syntax.

This brings to question whether Interpretative Semantics has justly claimed the victory and declared the end of The Linguistic War in the late seventies. Given the broad acceptance of many ideas that originate in Generative Semantics, together with the

waning – but nonetheless still strong -- paradigm of Generative Grammar, would it not

be more accurate to say that Interpretative Semantics had won an important battle,

but that The Linguistic War is not over just yet?

Truly, The Linguistic War has been very quiet in the past two decades. Cognitive

Linguistics as a field installed its own journals (e.g. Cognitive Linguistics, since 1990, by

Dirk Geeraerts) and conferences (e.g. International Cognitive Linguistic Conference,

since 1989, by René Dirven). Because of that, there has been no need to look for

contact and exchange with Chomsky's field. Moreover, the research questions and

methodologies of the two fields could not be farther apart.

The only noteworthy uprise took the form of a 2003 article by Frederick Newmeyer

and a response by Gregory Guy -- both professors experienced the roaring battle of the

sixties and seventies first handedly – in the flagship journal "Language". Newmeyer

argued along Chomskyan lines to exclude usage-phenomena from grammar. By doing

so, he provoked a series of responses that defended the Generative Semantics a.k.a.

Cognitive Linguistics point-of-view to include usage-phenomena in grammar. The

series was closed by Gregory Guy's letter in 2005. It is striking that no-one jumped to

the Newmeyer's defense.

So, what will the future bring for linguistics? Obviously, no one can tell, but something

is certainly going on. Construction Grammar, a strand of Cognitive Linguistics that was

initiated by (among others) Langacker's student Adele Goldberg, is becoming

increasingly popular, and its research questions come close to the syntactic questions

that are being asked in the Chomskyan domain. With the two fields now approaching

each other, one can observe growing animosity and polarization – but also a willing appeal for cross-fertilization and collaboration. For any linguist, in what field of linguistics whatsoever, these are exciting times.

Find out more

Randy Allan Harris (1993) *The Linguistics Wars*. New York: Oxford University Press.

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